REMARKS

35 U.S.C. § 112. Claim Rejections.

3. The Office Action states that "Claims 1, 10, 11, 17, 26, 27 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such as way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the invention. The original specification as filed does not disclose or support the selection of a web server. The Examiner notes the specification does [disclose] the selection or the determination of a preferred mirror instance (pg. 7 line(s) 15-20). Furthermore, the specification discloses having a web server, not a plurality of web servers that may lead to the selection of a selected web server. Therefore the selected web server as claimed introduces "new matter"."

Applicant has amended Claims 1, 10, 11, 17, 26, 27 and 31, to refer to the "first web server", as differentiated from the other servers cited in the Claims.

Support is seen in the Application as filed, at least in Figure 1 and Figure 5. Applicant submits that Claims 1, 10, 11, 17, 26, 27 and 31, as amended, are fully supported in the application as filed, and overcome the rejection under 35 U.S.C. 112, first paragraph.

Specification.

4. The Office Action states that "the disclosure is objected to because of the following informalities: The Examiner notes that on pg. 9 line(s) 1 that reference numbers 12 and 22 both refer to a network, wherein only 22 is a network. Suggested correction remove #22. Appropriate correction is required."

Applicant has amended the Specification, to refer to the network 12. Support is seen in the Application as filed, at least in Figure 1. Applicant submits that the Specification as amended, overcomes the objection.

Claim Objections.

5. The Office Action states that "Claims 1, 17, and 31 are objected to because of the following informalities: claim 1 line(s) 8 should read ... "the selected web server... ". The same follows for claim 17 line(s) 29 and claim 31 line(s) 38. Appropriate correction is required."

As discussed above, Applicant has amended Claims 1, 17, and 31, to particularly point out and distinctly claim "... the first web server ... ". Applicant submits that Claims 1, 17, and 31, as amended, overcome the objection.

35 U.S.C. § 102. Claim Rejections.

7-23. The Office Action states that "Claims 1-4, 6-10, 12-20, 22-23, 26, 28-37, 40, 42, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Joffe et al. (US 6,185,619)."

Applicant disagrees that Claims 1, 17 and 31 are anticipated by Joffe et al.

Hilton Davis / Festo Statement

Applicant has canceled dependent claims 13, 29, and 43, and has amended Claims 1, 2, 16, 17, 18, 31 and 32, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

Applicant has amended Claim 1, to claim a process implemented across a network for providing a link to a preferred network server corresponding to a

preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a first web server, and a client application at a client terminal, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the first web server by a first connection, wherein the client terminal is connected to the network through the first web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the first web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the first web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server; and

transmitting the dynamically generated web page from the first web server to the client terminal.

Dependent Claim 2 has been amended, to claim "The process of Claim 1, further comprising the step of:

automatically directing the user to the local mirror instance when the user selects the selectable localized link within the dynamically generated web page."

Dependent Claim 16 has been amended, to claim "The process of Claim 1, wherein the selectable localized link comprises an HTTP link."

Applicant has also amended Claim 17, to claim a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a first web server, and a client application at a client terminal having a unique address, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the first web server by a first connection, wherein the client terminal is connected to the network through the first web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the first web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the first web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server; and

transmitting the dynamically generated web page from the first web server to the client terminal.

Dependent Claim 18 has been amended, to claim the "process of Claim 17, further comprising the step of:

automatically directing the client user at the client terminal to the preferred mirror when the client user selects the selectable localized link within the dynamically generated web page."

As well, Applicant has amended Claim 31, to claim a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a first web server that is integrated with a client application at the user terminal, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the first web server by a first connection, wherein the user terminal is connected to the network through the first web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the first web server and the user terminal;

the server application for receiving a request sent to the first web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of

rules to the stored localization information through the server application at the first web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal.

Dependent Claim 32 has been amended, to claim "The system of Claim 31, further comprising:

means to direct the user terminal to the preferred mirror upon a selection by the user of the selectable localized link within the dynamically generated web page."

Support for Claims 1, 2, 17, 18, 31 and 32, as amended, is seen in the Application as filed, at least on page 7, lines 11-21 and 25-35; on page 8, lines 3-7 and 14-28; on page 8, line 31 to page 10, line 16; on page 10, line 36 to page 11, line 10; on page 11, lines 19-23; and in Figures 1-5.

Joffe et al. describe a method and apparatus for balancing the process load on network servers according to network and server based policies, as seen at least in the Abstract, wherein:

> "a method and system provides the ability to assign requests for data objects made by clients among multiple network servers. The invention provides a distributed computing system and methods to assign user requests to replicated servers contained by the distributed computing system in a manner that attempts to meet the goals of a particular routing policy. Policies may include minimizing the amount of time for the request to be completed."

Applicant submits that the method and apparatus for balancing the process load on network servers, as described by Joffe, is significantly different than Claims 1, 17, and 31, as amended.

For example, as seen in Claim 1, as amended, the process comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

As seen in Claim 17, as amended, the process comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

As well, the proximity resource allocation system seen in Claim 31, as amended, comprises, *inter alia*, a server application "... for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal".

Specific support for Claims 1, 2, 17, 18, 31 and 32, as amended, is seen in the Application as filed, at least in Figures 1, 2 and 5; and on page 7, lines 15-21, wherein:

> "Upon receipt of a user request, such as within a web page, that includes a link to localized/mirrored content, the stored localization information is queried, to determine the preferred mirror to the user, based upon the IP

address of the user terminal or network. A web page is then generated and transmitted to the user, which comprises a localized link to the determined mirror site. When the user selects the localized link, the user is automatically directed to the preferred mirror."

Further support is seen in the Application as filed, on page 9, lines 9-12, wherein:

"A web page 108 (FIG. 5) is then generated 60, which includes a localized link 110, such that a user may selectably access the mirrored content 15 from the preferred mirror site 18 through the user terminal 30. When a user selects the link 62, the user terminal 30 is automatically directed to the local mirror 18."

Additional support is seen in the Application as filed, on page 9, line 38 to page 10, line 7:

"Figure 5 is a schematic view of an IP proximity resource allocation system 100, which provides localization links 110, such as in accordance with the localization process 50 shown in Figure 2. As seen in Figure 5, a request 102 is sent from a user terminal 30, having an associated IP address 36, to a network service 106, such as a web service 106. While the network service 106 may be located at a service provider 22 (FIG. 1), the network service 106 may alternately be located at other locations within the network environment 10. The request 102 includes a mirrored content link 194. Upon receipt of the request 102 and link 104, the local information 92 is queried 58, to determine the preferred mirror site 18."

Joffe et al. describe the direction of a client to "the correct content server" using an application layer protocol, as seen at least in col. 13, lines 34-46, wherein:

"The Director component indicates the correct content server to be used for the client to the front end component in a step 418. The front-end component directs the client to the correct content server using an

application layer protocol, preferably an HTTP redirect response in a step 419. The front-end response is forwarded via a NAP to the client machine by the internetwork using, for example, the IP protocol. Subsequently, as shown in step 420, requests from the client will be made to the best content server, e.g., 232, via the best route to his machine. (Which is also the best place to enter the external network to get to the browsing client's own network provider.)"

Applicant submits that, while subsequent "requests from the client will be made to the best content server" in Joffe, there is no disclosure or suggestion, express or implied, of dynamic generation of a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server, or of a transmission of such a dynamically generated web page from the first web server to the client terminal. As well, in regard to Claims 2, 18, and 31, as amended, there is no disclosure or expression, express or implied, of automatically directing the client user at the client terminal to the preferred mirror when the client user selects such a selectable localized link within such a dynamically generated web page.

Therefore, in regard to Claim 1, as amended, Joffe et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 2, as amended, while Joffe et al. describe that subsequent "requests from the client will be made to the best content server", Joffe et al. fail to disclose or suggest a process that further comprises " the step of automatically directing the user to the local mirror instance when the user selects the selectable localized link within the dynamically generated web page."

In regard to Claim 17, as amended, Joffe et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 18, as amended, while Joffe et al. describe that subsequent "requests from the client will be made to the best content server", Joffe et al. fail to disclose or suggest a process that further comprises " the step of automatically directing the client user at the client terminal to the preferred mirror when the client user selects the selectable localized link within the dynamically generated web page."

As well, in regard to the proximity resource allocation system seen in Claim 31, as amended, Joffe et al. fail to disclose or suggest, *inter alia*, a server application "... for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal".

In regard to Claim 32, as amended, while Joffe et al. describe that subsequent "requests from the client will be made to the best content server", Joffe et al. fail to disclose or suggest a system as claimed in Claim 31, that further comprises "means to direct the user terminal to the preferred mirror upon a selection by the user of the selectable localized link within the dynamically generated web page."

Applicant therefore submits that Claims 1, 2, 17, 18, 31 and 32, as amended, overcome the rejection under 35 U.S.C. 102(b) as being anticipated by Joffe et

al. As well, there is no suggestion, express or implied, that Joffe et al be modified to meet Claims 1, 17 and 31 as amended.

The Examiner bears the burden of establishing a *prima facie* case of anticipation (In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138-139 (Fed. Cir. 1986)). The prior art reference must disclose each element of the claimed invention, as correctly interpreted, and as arranged in the claim (Lindermann Maschinefabrik Gmbh v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim (MPEP 2131).

As Claims 2-12 and 14-16 depend from amended independent Claim 1 as amended, as claims 18-28 and 30 depend from independent Claim 17 as amended, and as Claims 32-42 depend from amended independent Claim 31 as amended, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

35 U.S.C. § 103. Claim Rejections.

26-32. The Office Action states that "Claims 5, 8, 21, 24, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joffe et al. (US 6,185,619) as applied to claims 1, 17, and 31 above, and further in view of Farber et al. (US 6,185,598)".

In regard to Claims 5 and 21, the Office Action concedes that "Joffe et al. do not teach wherein the localization information further comprises a transmission cost for each mirrored instance of the content store to each network from which users connect."

However, the Office Action then states that "In the same field of endeavor Farber et al. teach receiving a request from a client and locating the closest mirror instance (repeater) using localization information. The information including transmission cost for each mirrored instance of the content store to each network from which users connect (Col. 11, line(s) 28-37 and Col. 13 line(s) 1-6 and 56-62)."

In regard to Claims 8, 24, and 38, the Office Action concedes that "Joffe et al. do not teach wherein the localization information further comprises cost information."

However, the Office Action then states that "In the same field of endeavor Farber et al. teach receiving a request from a client and locating the closest mirror instance (repeater) using localization information. The information including cost information for each mirrored instance of the content store to each network from which users connect (Col. 11, line(s) 18-22 and 28-37 and Col. 13 line(s) 1-6 and 56-62)."

Applicant respectfully disagrees that Claims 1, 17 and 31, as previously presented, are unpatentable over Joffe et al. in view of Farber et al.

Hilton Davis / Festo Statement

Applicant has canceled dependent claims 13, 29, and 43, and has amended Claims 1, 2, 16, 17, 18, 31 and 32, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

As discussed above, Applicant has amended Claim 1, to claim a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a first web server, and a client application at a client terminal, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the first web server by a first connection, wherein the client terminal is connected to the network through the first web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the first web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the first web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server; and

transmitting the dynamically generated web page from the first web server to the client terminal.

As further discussed above, Applicant has also amended Claim 17, to claim a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a first web server, and a client application at a client terminal having a unique address, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the first web server by a first connection, wherein the client terminal is connected to the network through the first web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the first web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the first web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server; and

transmitting the dynamically generated web page from the first web server to the client terminal.

As also discussed above, Applicant has amended Claim 31, to claim a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal

having a unique address is connectable to the preferred network server, comprising:

a server application at a first web server that is integrated with a client application at the user terminal, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the first web server by a first connection, wherein the user terminal is connected to the network through the first web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the first web server and the user terminal;

the server application for receiving a request sent to the first web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal.

Support for Claims 1, 17, and 31, as amended, is seen in the Application as filed, at least on page 7, lines 11-21 and 25-35; on page 8, lines 3-7 and 14-28; on page 8, line 31 to page 10, line 16; on page 10, line 36 to page 11, line 10; on page 11, lines 19-23; and in Figures 1-5.

Applicant respectfully disagrees that Claims 1, 17, and 31, as amended, are patentable over Joffe et al. (US 6,185,619) in view of Farber et al. (US 6,185,598).

Farber et al. describe an "optimized network resource location", as seen at least in the Abstract, wherein:

> "Resource requests made by clients of origin servers in a network are intercepted by reflector mechanisms and selectively reflected to other servers called repeaters. The reflectors select a best repeater from a set of possible repeaters and redirect the client to the selected best repeater. The client then makes the request of the selected best repeater. The resource is possibly rewritten to replace at least some of the resource identifiers contained therein with modified resource identifiers designating the repeater instead of the origin server."

Applicant submits that the system and process described by Farber is significantly different than Claims 1, 17 and 31, as amended.

In stark contrast to Claims 1, 17, and 31, as amended, Farber et al. teach that the reflector (that intercepts requests sent toward an original server) creates a new resource identifier (URL) that identifies a selected repeater, and sends a REDIRECT reply to the requesting client, as seen at least in column 8 lines 22-25 and 50-53.

Therefore, in regard to Claim 1, as amended, Farber et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 17, as amended, Farber et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

As well, in regard to the proximity resource allocation system seen in Claim 31, as amended, Farber et al. fail to disclose or suggest, *inter alia*, a server application "... for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal".

Applicant therefore submits that, even in combination, Joffe et al. and/or Farber et al. fail to meet Claims 1, 17, and 31, as amended. As well, there is no suggestion, express or implied, that Joffe et al. and/or Farber et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant modification and undue experimentation for any of Joffe et al. and/or Farber et al. to meet Claims 1, 17, and 31, as amended. In addition, as Joffe et al. and Farber et al. are individually complete, one practicing either of Joffe et al. and Farber et al. would have no apparent reason to combine the elements of Joffe et al. and Farber et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Joffe et al. and/or Farber et al. fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have

been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Joffe et al. in view of Farber et al.

As Claims 5 and 8 depend from independent Claim 1 as amended, as Claims 21 and 24 depend from independent Claim 17 as amended, and as Claim 38 depends from independent Claim 31 as amended, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

33-36. The Office Action states that "Claims 9, 25, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joffe et al. (US 6,185,619), as applied to Claims 1, 17, and 31 above, and further in view of Swildens et al. (US PGPub 2002/0052942)."

Applicant disagrees that Claims 9, 25, and 39 are unpatentable over Joffe et al. (US 6,185,619) in view of Swildens et al. (US PGPub 2002/0052942)."

Hilton Davis / Festo Statement

Applicant has amended Claims 1, 17, and 31, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

Swildens et al. describe a content delivery and a global traffic management network system, as seen at least in the Abstract, wherein:

> "A content delivery and global traffic management network system provides a plurality of caching servers connected to a network. The caching servers host customer content that can be cached and stored, and respond to requests for Web content from clients. If the requested content does not exist in memory or on disk, it generates a request to an origin site to obtain the content. A DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server which is selected by choosing the caching server that is closest to the user, is available, and is the least loaded. SPD also supports persistence and returns the same IP addresses, for a given client. The entire Internet address space is broken up into multiple zones. Each zone is assigned to a group of SPD servers. If an SPD server gets a request from a client that is not in the zone assigned to that SPD server, it forwards the request to the SPD server assigned to that zone. Servers write information about the content delivered to log files that are picked up by a log server."

In regard to Claim 1 as amended, while Swildens at al. describe that a "DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server", as seen at least in the Abstract, Applicant submits that, even in combination, Joffe et al., and/or Swildens et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 17 as amended, while Swildens at al. describe that a "DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server", as seen at least in the Abstract, Applicant submits that, even in combination, Joffe et al. and/or Swildens et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 31 as amended, while Swildens at al. describe that a "DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server", as seen at least in the Abstract, Applicant submits that, even in combination, Joffe et al. and/or Swildens et al. fail to disclose or suggest "a proximity resource allocation system comprising, *inter alia*, a server application "... for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal".

Applicant therefore submits that, even in combination, Joffe et al. and/or Swildens et al. fail to meet Claims 1, 17, and 31, as amended. As well, there is no suggestion, express or implied, that Joffe et al. and/or Swildens et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant modification and undue experimentation for any of Joffe et al. and/or Swildens et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Joffe et al. and/or Swildens et al. fail to teach or suggest all the claim limitations (MPEP

2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Joffe et al. and/or Swildens et al.

As Claim 9 depends from independent Claim 1 as amended, as Claim 25 depends from independent Claim 17 as amended, and as Claim 39 depends from independent Claim 31 as amended, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

37-39. The Office Action states that "Claims 11 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joffe et al. (US 6,185,619) as applied to claims 1, 17, and 31 above".

Applicant respectfully disagrees that Claims 1, 17 and 31, as previously presented, are unpatentable over Joffe et al.

Hilton Davis / Festo Statement

Applicant has canceled dependent claims 13, 29, and 43, and has amended Claims 1, 2, 16, 17, 18, 31 and 32, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

As discussed above, Applicant has amended Claim 1, to claim a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a first web server, and a client application at a client terminal, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the first web server by a first connection, wherein the client terminal is connected to the network through the first web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the first web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the first web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server; and

transmitting the dynamically generated web page from the first web server to the client terminal.

As further discussed above, Applicant has also amended Claim 17, to claim a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a first web server, and a client application at a client terminal having a unique address, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the first web server by a first connection, wherein the client terminal is connected to the network through the first web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the first web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the first web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server; and

transmitting the dynamically generated web page from the first web server to the client terminal.

As also discussed above, Applicant has amended Claim 31, to claim a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a first web server that is integrated with a client application at the user terminal, the first web server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the first web server by a first connection, wherein the user terminal is connected to the network through the first web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the first web server and the user terminal;

the server application for receiving a request sent to the first web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the first web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a web page that

includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal.

Support for Claims 1, 17, and 31, as amended, is seen in the Application as filed, at least on page 7, lines 11-21 and 25-35; on page 8, lines 3-7 and 14-28; on page 8, line 31 to page 10, line 16; on page 10, line 36 to page 11, line 10; on page 11, lines 19-23; and in Figures 1-5.

Applicant respectfully disagrees that Claims 1, 17, and 31, as amended, are patentable over Joffe et al. (US 6,185,619).

As discussed above, Joffe et al. describe the direction of a client to "the correct content server" using an application layer protocol, as seen at least in col. 13, lines 34-46, wherein:

> "The Director component indicates the correct content server to be used for the client to the front end component in a step 418. The front-end component directs the client to the correct content server using an application layer protocol, preferably an HTTP redirect response in a step 419. The front-end response is forwarded via a NAP to the client machine by the internetwork using, for example, the IP protocol. Subsequently, as shown in step 420, requests from the client will be made to the best content server, e.g., 232, via the best route to his machine. (Which is also the best place to enter the external network to get to the browsing client's own network provider.)"

Applicant submits that, while subsequent "requests from the client will be made to the best content server" in Joffe, there is no disclosure or suggestion, express or implied, of dynamic generation of a web page that includes a selectable localized link to the determined preferred mirror instance through the server

application at the first web server, or of a transmission of such a dynamically generated web page from the first web server to the client terminal.

Therefore, in regard to Claim 1, as amended, Joffe et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

As well, in regard to Claim 17, as amended, Joffe et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

Furthermore, in regard to the proximity resource allocation system seen in Claim 31, as amended, Joffe et al. fail to disclose or suggest, *inter alia*, a server application "... for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal".

Applicant also submits that there is no suggestion, express or implied, that Joffe et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant modification and undue experimentation for Joffe et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Joffe et al. fails to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claims 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Joffe et al.

As Claim 11 depends from independent Claim 1 as amended, and as Claim 27 depends from independent Claim 17 as amended, and inherently include all the limitations of the claims they depend from, they are seen to be patentable as well.

40-44. The Office Action states that "Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joffe et al. (US 6,185,619) as applied to Claims 1, 17, and 31 above, and further in view of [Iyer] et al. (US 7,058,706)."

Applicant disagrees that Claims 1, 17, and 31, as previously presented are unpatentable over Joffe et al. (US 6,185,619) in view of Iyer et al. (US 7,058,706)"

Hilton Davis / Festo Statement

Applicant has amended Claims 1, 17, and 31, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

Iyer et al. describe a method and apparatus for determining latency between multiple servers and a client, as seen at least in the abstract, wherein:

> "A method and apparatus for determining latency between multiple servers and a client receives requests for content server addresses from local domain names servers (LDNS). POPs that can serve the content are determined and sent latency metric requests. The content server receives the request for latency metrics and looks up the latency metric for the requesting client. Periodic latency probes are sent to the IP addresses in a Latency Management Table. The IP addresses of clients are masked so the latency probes are sent to higher level servers to reduce traffic across the network. The hop count and latency data in the packets sent in response to the latency probes are stored in the Latency Management Table and is used to determine the latency metric from the resident POP to the requesting client before sending the latency metric to the requesting server. The BGP hop count in the Latency Management Table is used for the latency metric upon the first request for an IP address. The latency metric is calculated for subsequent requests of IP addresses using the hop count and RTT data in the Latency Management Table. Latency metrics from POPs are collected and the inverse relationship of the hop counts in a weighted combination with the RTT are used to determine which latency metric indicates the optimal POP. The address of the optimal POP is then sent to the requesting LDNS."

In regard to Claim 1, as amended, while Iyer at al. describe that "the address of the optimal POP is then sent to the requesting LDNS", as seen at least in the

Abstract, Applicant submits that, even in combination, Joffe et al., and/or Iyer et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 17, as amended, while Iyer at al. describe that "the address of the optimal POP is then sent to the requesting LDNS", as seen at least in the Abstract, Applicant submits that, even in combination, Joffe et al. and/or Iyer et al. fail to disclose or suggest a process that comprises the steps of, *inter alia*:

"dynamically generating a web page that includes a selectable localized link to the determined preferred mirror instance through the server application at the first web server"; and

"transmitting the dynamically generated web page from the first web server to the client terminal".

In regard to Claim 31 as amended, while Iyer at al. describe that "the address of the optimal POP is then sent to the requesting LDNS", as seen at least in the Abstract, Applicant submits that, even in combination, Joffe et al. and/or Iyer et al. fail to disclose or suggest "a proximity resource allocation system comprising, *inter alia*, a server application "... for dynamically generating a web page that includes a selectable localized link to the determined preferred mirror through the server application at the first web server, and for transmitting the dynamically generated web page from the first web server to the user terminal".

Applicant therefore submits that, even in combination, Joffe et al. and/or Iyer et al. fail to meet Claims 1, 17, and 31, as amended. As well, there is no suggestion, express or implied, that Joffe et al. and/or Iyer et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant

modification and undue experimentation for any of Joffe et al. and/or Iyer et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Joffe et al. and/or Iyer et al. fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Joffe et al. and/or Iyer et al.

As Claim 41 depends from independent Claim 31 as amended, and inherently includes all the limitations of the claims it depends from, Claim 41 is seen to be patentable as well.

CONCLUSION

For the foregoing reasons, the claims in the present application are directed to statutory subject matter and are patentably distinguished over the cited references. Applicant also submits that the amendments do not introduce new matter into the Application. Based on the foregoing, Applicant considers the invention to be in condition for allowance. Applicant earnestly solicits the Examiner's withdrawal of the rejections set forth in the prior Office Action, such that a Notice of Allowance is forwarded to Applicant, and the present application is therefore allowed to issue as a United States Patent.

Respectfully Submitted,

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